

**METHOD FOR INCREASING THE BATTERY LIFE OF AN**  
**ALTERNATING CURRENT IONTOPHORESIS DEVICE USING A**  
**BARRIER-MODIFYING AGENT**

**ABSTRACT OF THE DISCLOSURE**

An iontophoretic method for transporting compounds of interest across a body tissue is provided. The method utilizes an AC signal in conjunction with a barrier-modifying agent such as a fatty acid, fatty alcohol, bile acid, surfactant, or the like. The method enables the maintenance of a substantially constant electrical state in a localized region of the tissue through which transport occurs, thereby allowing a compound of interest to be transported across the tissue in a controlled and predictable manner. The barrier-modifying agent reduces the time as well as the voltage level required to achieve a target electrical resistance, thereby reducing patient discomfort and increasing the battery life of the iontophoresis device.